

# Mini DVR HD Camera

Full HD 1080P Video Helmet Camera

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## LS-Q88

### User Manual



RoHS

**Warning**

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

**Attention**

Electromagnetic fields at specific frequencies may influence the picture of the recorder.

**Be sure to read the following before using the recorder and the mini camera.**

**Trial recordings**

Before you record one-off events, you may want to make a trial recording to make sure that the recorder and the camera are working correctly and configured as required.

**Notes on image data compatibility**

Playback of moving images recorded with your recorder on other equipment and playback of moving images recorded or edited with other equipment on your recorder are not guaranteed.

**Do not shake or strike the recorder.**

Damage may occur under very heavy vibration or if the unit is dropped.

**LCD screen and mini camera**

Be careful when placing the camera near a window or outdoors. Exposing the LCD screen or the lens of camera to direct sunlight for long periods may cause malfunction. Never point the camera directly at the sun.

**Back up recommendation**

To avoid the potential risk of data loss always back up your data.

## Table of Contents

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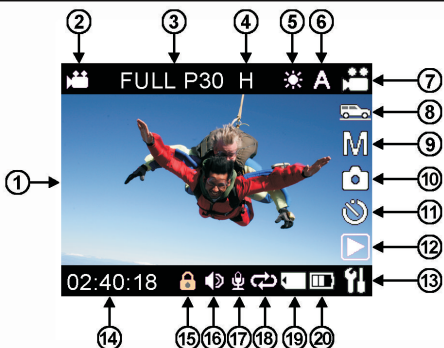
Identifying the parts of the recorder.....	4
LCD screen indicators.....	5
Mode operational guidelines.....	6
Video mode operation and options.....	6
Menu Setup.....	7
Size(Resolution Setup).....	7
Quality(Quality Setup).....	7
White Balance(White Balance Setup) .....	8
Metering.....	8
Scene.....	8
File System.....	8
Recycle(Overwrite / Loop Mode Setup).....	9
Car Time Lapse REC.....	9
Split Mode.....	9
Speaker Volume.....	9
File format.....	9
Audio.....	9
Alarm sound.....	9
Date format.....	10
Date Time setup.....	10
Stamp.....	10
LCD Off.....	10
Screen saver.....	10
Lock Key.....	10
Format.....	10
Language.....	10
System Reset.....	11
Version.....	11
DVR Specifications.....	12
HD Camera Specifications.....	12
Accessories.....	13

# Identifying the parts of the recorder



1. 2.5"TFT LCD Screen
2. [ ●/▶ ] Record / Photo / OK
3. [ ◀◀ ] Up / Fast backward
4. [ ▶▶ ] Down / Fast forward
5. [ ↶ ] Return / Photo / Mode / Menu Delete
6. [ ⏻ ] Power (switch up for 2 sec as power ON/OFF)
7. Wired Control (LANC)/ Mic in (unequipped External mic temporarily)
8. USB Anschluss (Dateiübertragung /Laden/Car charger)
9. HDMI-in for HD camera Anschluss
10. Built-in microphone
11. TF Card slot
12. HDMI Out Anschluss
13. With 1/4" tripod thread
14. LED Charge indicators
15. LED Power/REC Work indicators
16. Direction of opening the rear cover
17. Speaker

## LCD screen indicators





- 1.LCD Screen
- 2.REC mode icon
- 3.Recording resolution icon
- 4.REC quality icon
- 5.Metering Icon
- 6.Scene Icon
- 7.1080P/1080i/720P Recording Mode
- 8.Car Mode
- 9.Motion Detection Mode
- 10.1/4/8 Photo Burst Mode
- 11.Time Lapse Video Mode
- 12.Movie playback Mode
- 13.Menu Setup Mode
- 14.Remaining time of memory
- 15.Keyboard lock icon
- 16.Speaker icon
- 17.Built-in microphone icon
- 18.Cycle recording icon
- 19.TF card icon
- 20.Battery Power icon

# Mode operational guidelines

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## Power on/off Operations:





Press button [  ] and hold for 3 seconds to switch on recorder.

Press button [  ] and hold for 5 seconds to shut down recorder.

## Note:




Please don't make mistake the interface of HD Camera and wired controller to avoid damage DVR.

## Video mode operation and options:

Press [  ], the right side of the screen will automatically pop-up mode menu, press [  ] and [  ] to select mode icons, if there is no operation in 10 seconds when pressing [  ], the mode menu will be automatically hidden to the right.



## Recording mode:

In the recording mode , press [  ] to start or stop recording, press [  ] and [  ], EV can be adjusted in record/preview mode(EV Adjustment -2.0 ~ +2.0).



## Car Mode:

In the car mode, DVR of the car will startup video function automatically when USB Car Charger connect with power supply; DVR will delay shutdown and keep recording automatically in 2~30 minutes after ignition is off. Set up the time of Delay shutdown to select [Car Time lapse REC] in the menu.






## Motion Detection Mode:

In the motion detection mode, when motion detection is active, there will be M displayed at the top of the screen.

If any motion is detected, the system will start recording in 2 seconds. We recommend using this option together with the power mains adaptor.



## Photo Mode:

In the photo mode, press [  ] to take photos, press [  ] and [  ] to shift between single photo mode and burst mode that includes 1/4/8 photo Burst function.

# Menu Setup



## Time Lapse Video Mode:

In Time Lapse Video Mode, press [●/▶] to start or stop recording, press [◀◀] and [▶▶] to shift between 1"/5"/10"/30"/60", the Video will be kept the file of [Time-Lapse Video].



## Movie playback Mode:

The videos and photos can be played back in Movie playback Mode. Press [●/▶] to begin Start and Stop, press [◀◀] and [▶▶] to select fast forward /backward, press [↶] to return the movie, press [↷] for several seconds in playing menu to enter cancel and protect file.



## Menu Setup:

### 1, Size(Resolution Setup):

Display	Aspect Ratio	Definition	fps
1920x1080 30FPS	16:9	1080P	30
1920x1080 25FPS		1920x1080	25
1440x1080 30FPS	16:9	1080i	30
1440x1080 25FPS		1440x1080	25
1280x720 60FPS	16:9	720P 1280x720	60
1280x720 50FPS			50
1280x720 30FPS			30
1280x720 25FPS			25

If you are recording high motion activities then you might find recording at a lower resolution with a higher frame rate gives you better results.

If you intend to broadcast your video in a PAL country (UK and most of Europe) then choose 25 or 50fps. If you are only ever going to watch your video on a computer or upload to a video website like youtube then choose 30 or 60fps.

### 2, Quality(Quality Setup):

Resolution	Display	Bitrate
1920x1080 30FPS	H	15Mbps
	M	12Mbps
	L	8Mbps

# Menu Setup

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## 3, White Balance(White Balance Setup) :

You can choose different white balance values for filming in different conditions.

Default is Auto.

WHITE BALANCE	Auto
	Sunny
	Cloudy
	Tungsten
	Fluorescent

## 4, Metering:

Shooting under different conditions, you may select different metering mode, it will be shown the corresponding icons on screen after selecting one.

Default is Center.

Metering	Center
	Average
	Spot

## 5,Scene:

Shooting in different conditions, you may select different Scene mode, it will be shown different icons on screen after selecting one.

Default is Auto.

Scene	Auto
	Night Portrait
	Night Scenery
	Sports
	Landscape
	Portrait
	Sunset

## 6,File System:


To choose PAL / NTSC based on the Country you are filming in. The UK and most of Europe will be PAL. America will be NTSC.



# Menu Setup

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## **7, Recycle(Overwrite / Loop Mode Setup):**

When Overwrite / Loop Mode is active, there will be a [  ] displayed at the top of the screen.

The recorder will save a new file every 5 minutes; When the SD card is nearly full, the system will delete the oldest file and replace it with a new file.

## **8, Car Time Lapse REC:**

If Delay shutdown was set up, DVR will power off automatically and keep the videos after the ignition is off. The setup only work in [ Car Mode ], and Delay shutdown function will not be appeared in other modes.

## **9, Split Mode:**

You may set up each video and split it as the time you need, please choose the shortest split if long time cycling video needed. System will save files at set intervals. 30mins is the maximum. After the file reaches this time limit, a new file is automatically started until the card is full.

## **10, Speaker Volume:**

Speaker volume can be set up from 1-8, the speaker will be closed when 0 was set.

## **11, File format:**

The system has MP4/MOV/AVI format, you may select the suitable format as playing device, you may choose MP4 if you want to put video into apple mobile products. Default is Mp4.

## **12, Audio:**

Speaker volume can be setup from 1-8, the speaker will be closed when 0 was set.

## **13, Alarm sound:**

When alarm sound start, DVR will give alarm voice if not connecting with camera or TF Card.

# Menu Setup

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## 14. Date format:

There are three formats for your selection, you may select date format as your country or custom.

## 15. Date Time setup:

Press On to enter into time and date setup; use [⏮]/[⏭] to increase or decrease the number and press [●/▶] to confirm.

## 16. Stamp:

If you choose the time stamp, then there will be a stamp showing the time embedded on to the video. If you have this enabled when recording, it can't be removed from the video afterwards.

## 17. LCD Off:

The LCD will enter into power-saving mode after the set time. Setting this will greatly improve battery recording times.

## 18. Screen saver:

When Screen saver turned on, the screen will jump to the screen saver mode after corresponding time selected, but screen saver mode will not affect video.

## 19. Lock Key:

When Lock Key turned on, the key will be locked in two seconds after video begins, other keys cannot be operated at this moment except pressing [●/▶] for several seconds to unlock.

## 20. Format:

To format the entire SD card

Please note: any files will be deleted included the locked files. You should format the SD card on a regular basis.

## 21. Language:

There are 11 languages in the system, you may setup as your need.

English/Русский/Español/Deutsch/Italiano/日本語/한국의/Français/简体中文/繁體中文

# Menu Setup

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## **22. System Reset:**

Please re-set to restore the factory settings when first time to use DVR.

## **23. Version:**

### Firmware Checking

To check the firmware version, from time to time we will work on a new firmware in order to add new functions and enhance functions. You can update the firmware by putting the file on to the blank SD card and turning the DVR on. It will ask you if you want to update. Firmware (when available) can be downloaded for free from our official website and agent's website.

# DVR and HD Camera Specifications

## DVR Specifications:

Digital Screen	2.5" TFT LCD
Recording Format	MP4 / MOV / AVI
Codec	H.264
Recording Resolution	1920 x 1080 (30/25fps)
	1080X1440 (30/25fps)
	1280 x 720 (60/50/30/25 fps)
Photo Resolution	4032x3024
Storage	Support Max: SDHC 64gb (Class 4 or better) (30mins for 4GB card @ Full HD)
Output Jack	HDMI Port
1/4"-20 thread	Yes
USB Jack	High-speed USB 2.0
DC Input	DC 5V 1.5A
External Microphone	HDMI Port
Wired Control (LANC) Jack	HDMI Port
Battery	3.7V/1400mAh
Dimension	(L x W x H): 79mm x 55mm x 20mm

## HD Camera Specifications:

Camera Degree	Full HD/1080P:110°
	720P: 135°
Image sensor:	5 Mega pixel, 1/2.5-inch CMOS sensor
Low light Sensitivity	3LUX
Cable Length	1.5m
Dimensions	ø20×65mm
with 1/4" tripod thread	

# Accessories

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## Accessories:



Mini DVR



HD Camera



Wired Control



Vented Helmet Mount



3M sticker x 2



Battery



Battery Charger



Car Charger



USB Cable



User Manual CD

Printed in China

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